



# Channel Islands Argonauts

**Deadline: Nov. 30, 2004**

JASON Expedition: Disappearing Wetlands should be an exciting expedition of Louisiana's Bayou. For the third year in a row, several local organizations are teaming up to provide an opportunity for 20 outstanding students to become members of an elite group—the Channel Islands Argonauts. This group will have the chance to explore the Channel Islands region with researchers and staff from the Channel Islands National Marine Sanctuary and National Park, as well as compare and contrast it with the wetlands in the bayou.

Channel Islands Argonauts will be:

- Participants in a boat trip on the Research Vessel *Shearwater* to the Channel Islands National Marine Sanctuary and National Park
- Actively involved as student ambassadors at the viewing and/or PIN sites in Santa Barbara and Ventura Counties for one day during the live broadcasts
- Work hand-in-hand with researchers on various projects that promote service learning
- Invited to community events

Requirements

- Student must be nominated by a teacher participating in the current *JASON Expedition* or *JASON XIV: From Shore to Sea* or *JASON XIV Plus*
- JASON teachers may nominate no more than one student
- Student must be a 5th - 8th grader in Santa Barbara or Ventura County
- Student will be required to submit a 500-word essay and poster project idea

**For more information, please contact: Claire Johnson ([claire.johnson@noaa.gov](mailto:claire.johnson@noaa.gov))**



*The Channel Islands Argonauts Program is a cooperative effort between NOAA's Channel Islands National Marine Sanctuary, Channel Islands National Park, Santa Barbara Maritime Museum, UCSB Marine Science Institute, Santa Barbara County Education Office and Ventura Superintendent of Schools Office.*



# Channel Islands Argonauts Selection Criteria and Participation

## Selection Criteria

1. The Channel Islands Argonauts Program is open to all Santa Barbara and Ventura County 5<sup>th</sup>-8<sup>th</sup> grade students participating in *JASON Expedition: Disappearing Wetlands*, *JASON XIV: From Shore to Sea* or *JASON XIV Plus*. Twenty students will be selected from both Santa Barbara and Ventura Counties.
2. Students must be nominated by teachers that are participating in *JASON Expedition: Disappearing Wetlands*, *JASON XIV: From Shore to Sea* or *JASON XIV Plus*. Teachers may only nominate one student.
3. Students will submit a 500-word essay and poster project idea to their teacher. Possible topics include the comparing and contrasting of: Louisiana's Bayou to the Channel Islands; wetland environments to offshore islands; wetlands as nurseries for fish vs. kelp forest as habitats for fish and invertebrates; or the impacts of watersheds in both regions. Also discuss why you would like to be a Channel Islands Argonaut. An essay application is included in this packet along with background information about *Disappearing Wetlands* and the *From Shore to Sea* concept.
4. Teachers will review student submissions and then select no more than one application to submit to the review panel by **November 30, 2004**.
5. The review panel will include representatives from the Channel Islands National Marine Sanctuary, Channel Islands National Park, Santa Barbara Maritime Museum, and Santa Barbara and Ventura County Offices of Education. The goal is to select student Argonauts from as many different school districts as possible within Santa Barbara and Ventura Counties.
6. **The review panel will select the 20 Channel Islands Argonauts by December 10, 2004 and notify teachers.** The first orientation meeting will be held on the evening of December 16, 2004.

7. Poster projects will be due and presented at an evening meeting on January 19, 2005. The review panel reserves the right to display the essays and poster projects at various venues, including Sanctuary Advisory Council meetings, *JASON Expedition: Disappearing Wetlands* live broadcasts, and the JASON Educators Conference.
8. Teachers must allow student participation on the boat trip and live broadcast events during school hours (dates TBD).

#### **Participation Details**

1. Channel Islands Argonauts will need written permission from their parent(s) or guardian(s) to participate in the program.
2. Channel Islands Argonauts will participate in a boat trip to the Channel Islands National Marine Sanctuary and National Park.
3. Channel Islands Argonauts will be involved as student ambassadors at the viewing and/or PIN sites in Santa Barbara and Ventura Counties for one day during the live broadcasts January 31 - February 5, 2005.
4. Channel Islands Argonauts will work hand-in-hand with various researchers in various monitoring and volunteer projects.

#### **Rules and Review Criteria**

1. All applications must be received by the November 30, 2004 deadline.
2. Only complete essay applications that do not exceed 500 words will be eligible for review. Add word count at bottom of the student essay.
3. All applications must be nominated by a teacher participating in *JASON Expedition: Disappearing Wetlands*, *JASON XIV: From Shore to Sea* or *JASON XIV Plus*.
4. Applications will be evaluated on:
  - a. The organization and originality of the essay and poster project concept.
  - b. Reasons for wanting to be a Channel Islands Argonaut.
  - c. Demonstrate enthusiasm for science and JASON Expeditions.

**Please submit complete application (teacher nomination and student essay) to:**

Claire Johnson, West Coast Education Liaison

National Marine Sanctuary Program

735 State Street, Suite 617

Santa Barbara, CA 93101

Phone 805.963.3238 ext. 18

Fax 805.963.2438

# What is *From Shore to Sea* About?

The shores of southern California are beckoning you to a season of exploration and discovery! JASON XIV: From Shore to Sea expedition focused on the California Channel Islands and the surrounding sea.

The theme is **monitoring change**, specifically exploring these three main research questions:

- ❖ What are the dynamic systems of Earth and space?
- ❖ How do these systems affect life?
- ❖ What technologies do we use to study these systems, and why?

Why learn about the Channel Islands region?

- ❖ This area is home to amazing plant and animal species, some that are found nowhere else on Earth.
- ❖ If we learn about the unique resources of this special region, we will realize how important it is for humans to help preserve and protect it.
- ❖ These islands hold mysteries yet to be discovered.

## JASON XIV: *From Shore to Sea* Research Stories

In the first story, the **geography and natural history** of the Channel Islands, you'll consider how the islands' location affects their environment. You will also learn how the Channel Islands were formed and how they are geologically connected to the California mainland.

The second story involves **human history and culture** of the Channel Islands. You will explore some of the oldest evidence of human life on the Channel Islands, and be introduced to the history of the Chumash people and their traditions.

In the third story, you will learn about **watersheds** and how they affect ecosystems on the land and in the sea. You will learn how images from satellites help biologists understand the ecological connections between land and sea, as well as how information is gathered about coastal ecosystems.

What is a **kelp forest** and what role does it play in the Channel Islands ecosystem? You will learn how researchers are studying and exploring this amazing forest ecosystem that exists under the waves. You will also find out how environmental changes are affecting the health of kelp forests.

The appealing **pinnipeds (seals and sea lions)** are the stars of story 5. What's the difference between a seal and a sea lion? How deep do they dive and where do they migrate? You'll learn the answer to these questions and more.

The expedition concludes with a look at **terrestrial and marine conservation** efforts underway in the Channel Islands region, including programs to save the rare Channel Island fox from extinction and to develop marine reserves around the islands to protect the special ecosystems.

# JASON Expedition: Disappearing Wetlands

Wetlands are unique ecosystems found throughout the world that provide habitats for an incredible diversity of plants and animals. They are nurseries for countless species of fish and shellfish that we depend on for food, protect vulnerable coastlines from hurricanes and storm surges, and help filter and purify the small amount of freshwater that is found on our planet.

This year's JASON Expedition takes us to Louisiana's Bayou to **better understand what wetlands are, why they are disappearing, and how to best manage these ecosystems**. It is your challenge to take what you learn from our adventures in the Bayou and compare and contrast them with California's Channel Islands.

## JASON Expedition: Disappearing Wetlands

### Unit 1: Louisiana's Changing Wetlands

Topics covered include:

- Wetland Environments
- Riverine Systems
- Erosion and Deposition
- Delta Formation
- Land Building Processes
- Forces that Shape Earth's Surface
- Land-Ocean Interactions

*Think about ways to compare and contrast the kelp forest, sandy bottom and rocky reef habitats of the Channel Islands to Louisiana's wetland environments. What about exploring how the Channel Islands were formed as compared to the river delta?*

### Unit 2: Louisiana's Wetland Ecosystems

Topics covered include:

- Wetland Ecosystems
- Adaptation of Organisms
- Classification of Wetlands
- Effects of Salinity on Organisms
- Wetlands Food Webs and Food Chains
- Interactions of Species in Wetland Ecosystems

*What are some ways that the food webs and food chains of the wetlands differ from that of the Channel Islands?*

### Unit 3: Managing Louisiana's Wetlands

Topics covered include:

- Wetland Resources
- Wetland Values
- Impact of Human Activities on Natural Ecosystems
- Natural and Human Induced Hazards
- Costs and Benefits of Technological Solutions
- Ecosystem Restoration and Conservation
- Use of Satellites to Monitor Earth's Surface

*Compare and contrast methods researchers use to study wetlands as opposed to marine sanctuaries, such as the Channel Islands. What kind of restoration is taking place on the Channel Islands and in the surrounding sea, and how does that compare to wetland restoration?*



## Channel Islands Argonauts Student Essay Application

Name: \_\_\_\_\_

Grade: \_\_\_\_\_

JASON Teacher: \_\_\_\_\_

Possible topics include the comparing and contrasting of: Louisiana's Bayou to the Channel Islands; wetland environments to offshore islands; wetlands as nurseries for fish vs. kelp forest as habitats for fish and invertebrates; or the impacts of watersheds in both regions. Which topic would you select to highlight in your poster presentation? Why would you like to be selected as a Channel Islands Argonaut? *No more than 500 words. Put your word count at the bottom of the page.*



# Channel Islands Argonauts Teacher Nomination Form

JASON Teacher: \_\_\_\_\_

Teacher Email: \_\_\_\_\_

Teacher Phone: \_\_\_\_\_

Student Name: \_\_\_\_\_

School: \_\_\_\_\_

School Address: \_\_\_\_\_

District: \_\_\_\_\_

**Why should this student be selected as a Channel Islands Argonaut?**